

REVOLUTION LUTIN IZING URBAN TRANSIT



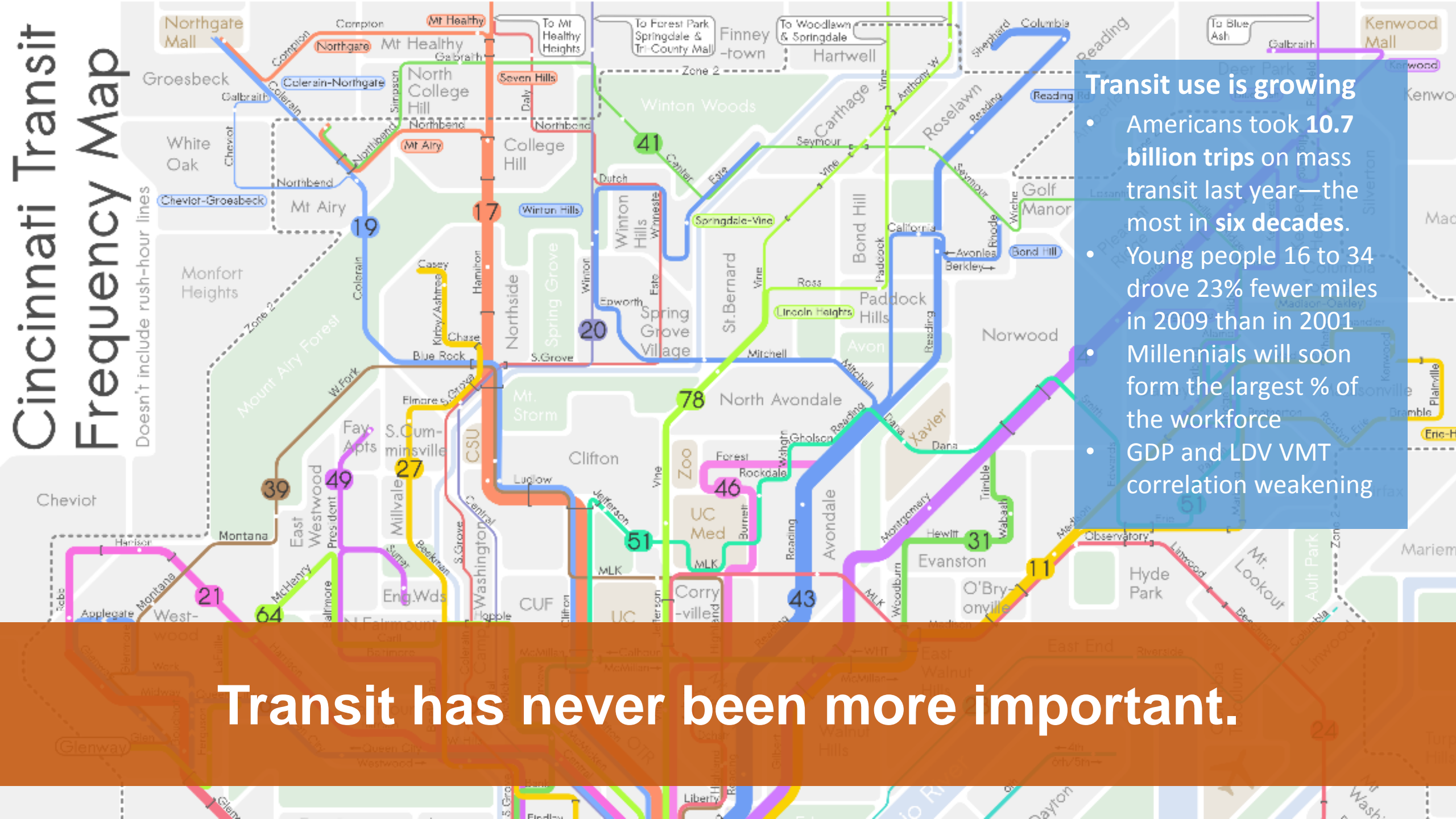
PROTERRA

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Innovations in Transportation

California Transportation
Commission
October 21, 2015




Cincinnati Transit Frequency Map

Doesn't include rush-hour lines

- Transit use is growing**
- Americans took **10.7 billion trips** on mass transit last year—the most in **six decades**.
 - Young people 16 to 34 drove 23% fewer miles in 2009 than in 2001
 - Millennials will soon form the largest % of the workforce
 - GDP and LDV VMT correlation weakening

Transit has never been more important.



Total fuel consumed
by buses per year:

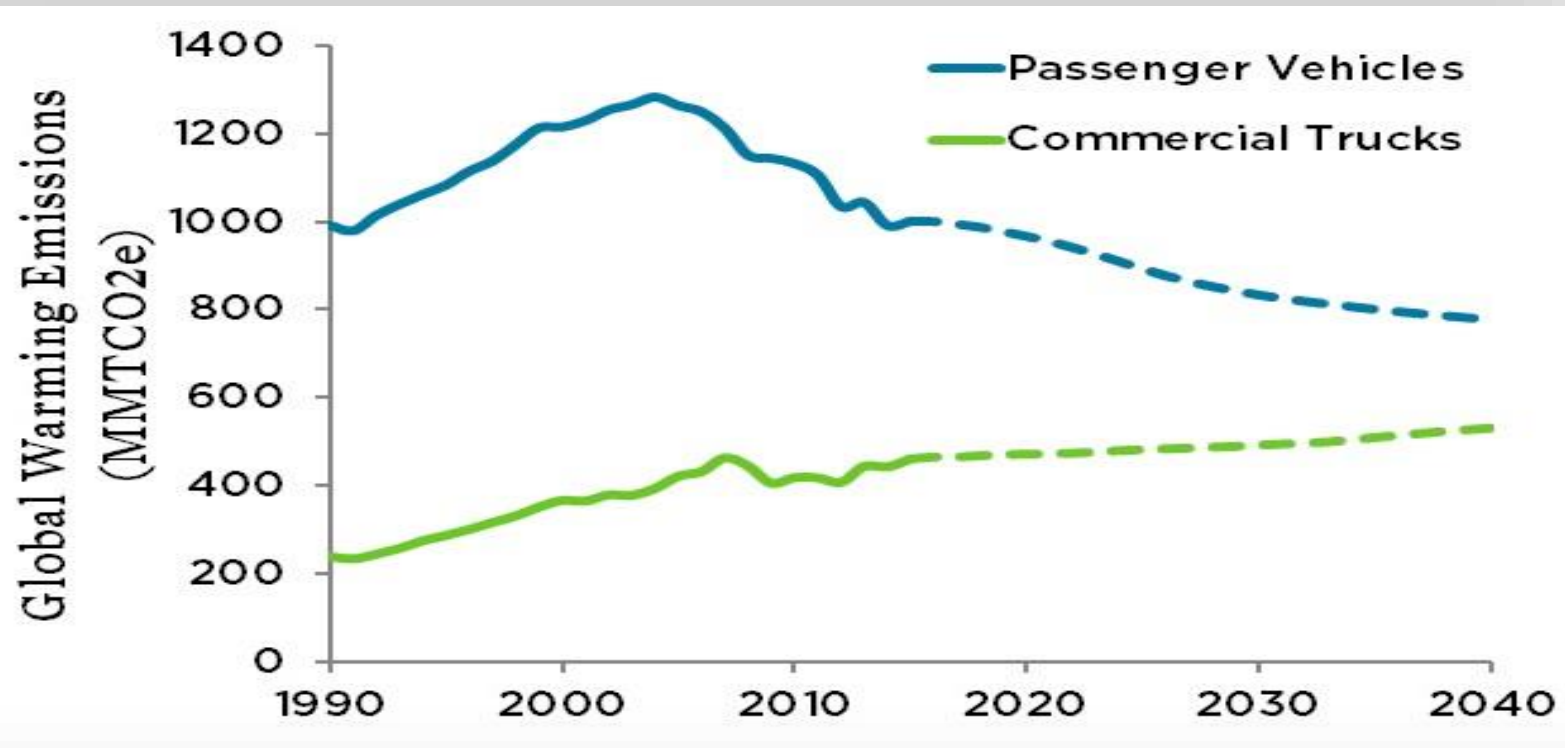
- Diesel fuel:
389,600,000 gallons
- CNG fuel:
150,000,000 gallons

Total GHG per year:

- From diesel buses:
12,500,000,000 lbs
- From CNG buses:
4,600,000,000 lbs
- From hybrid buses:
832,600,000 lbs

**More urbanization = more transit.
More transit = more pollution?**

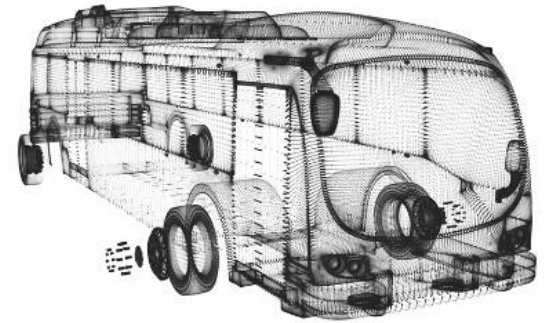
HEAVY



“The biggest reason for the continued increase in emissions from the Heavy-Duty Sector is the simple fact that efficiency has remained stuck in the 1970s at about **6 miles per gallon”**

TIME TO REIMAGINE

BUS TRANSIT



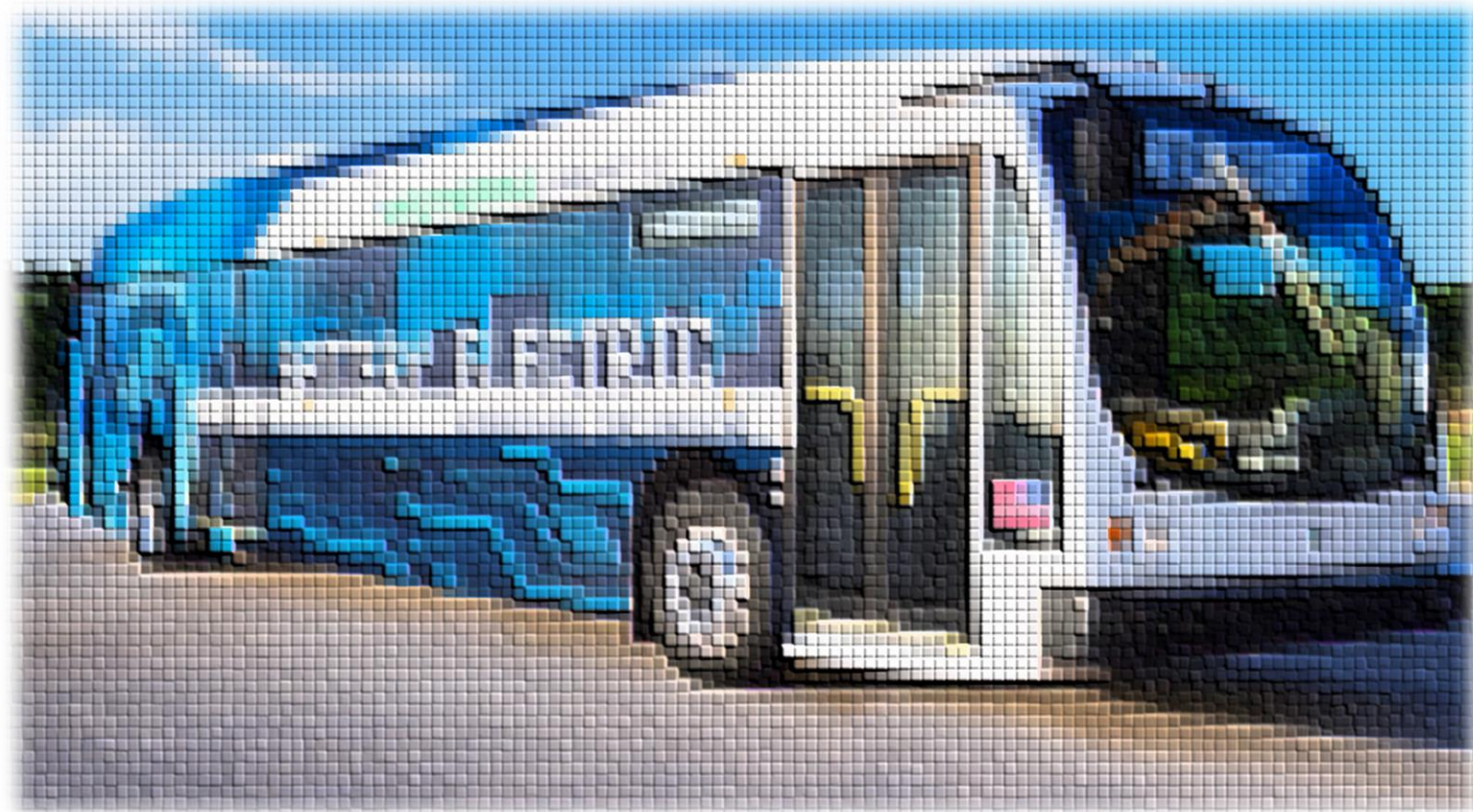
INNOVATE TO ZERO

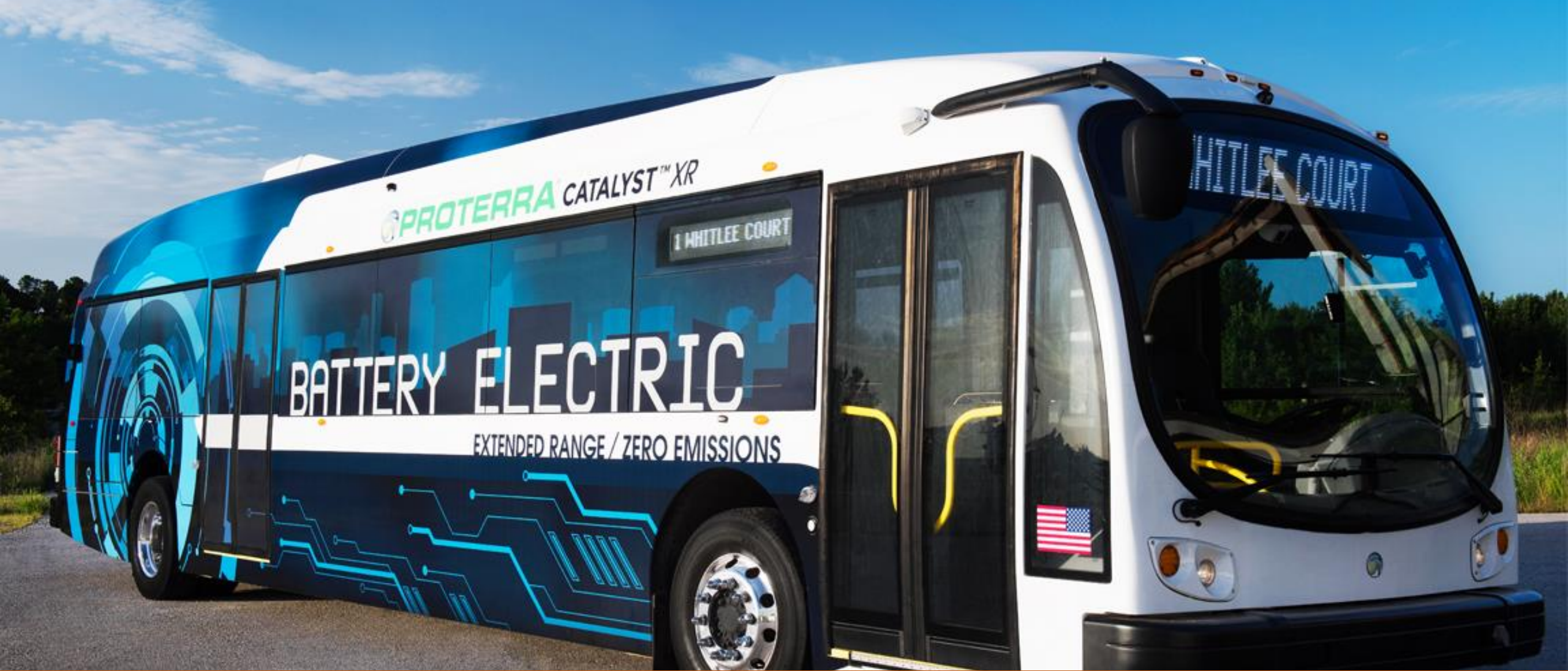
QUIET

LIGHT WEIGHT

DIGITAL RELIABILITY

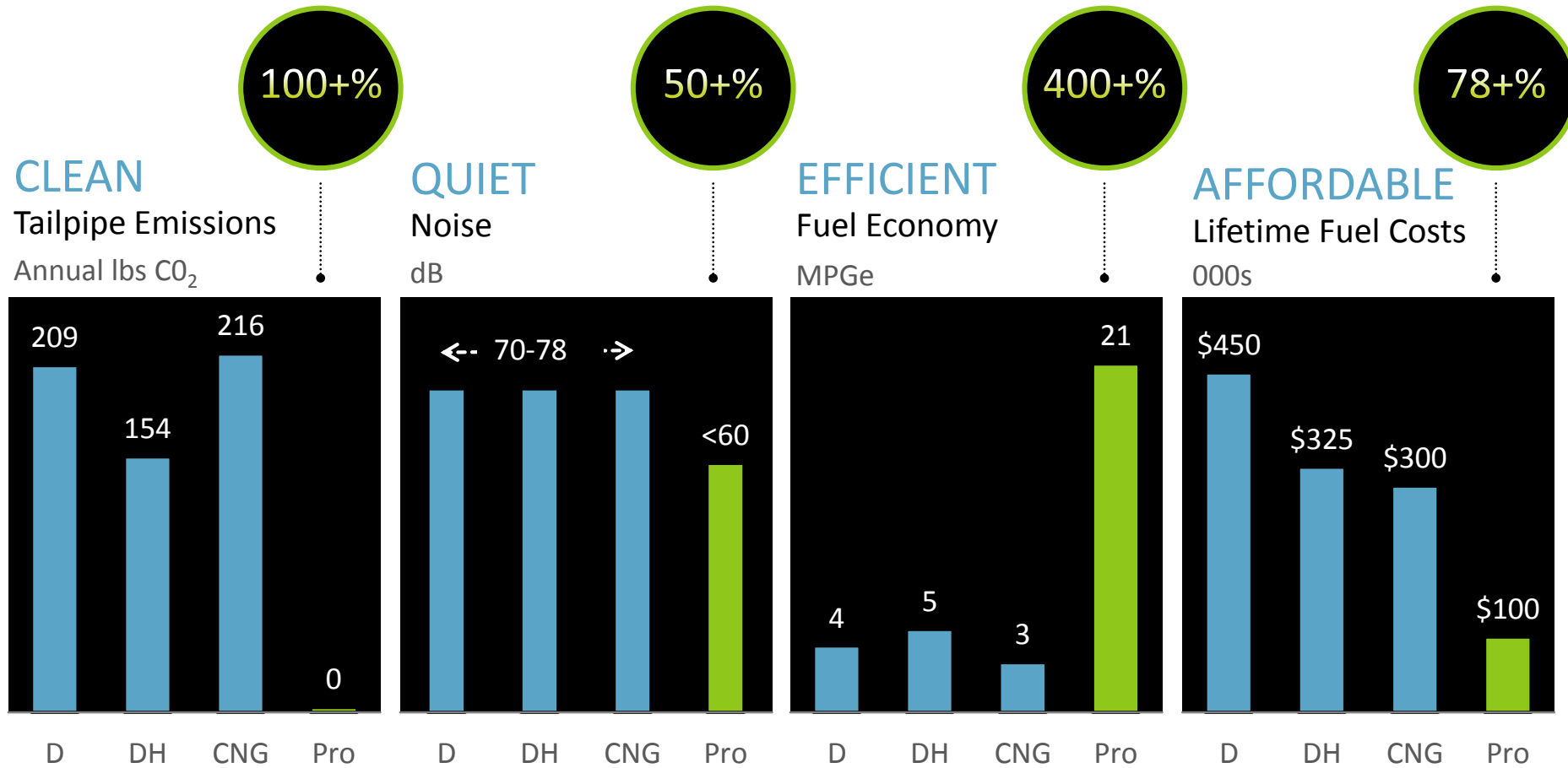
HIGH PERFORMANCE





Proterra® EV Transit Bus Record Breaking (Accel, Climb, Efficiency, Weight)

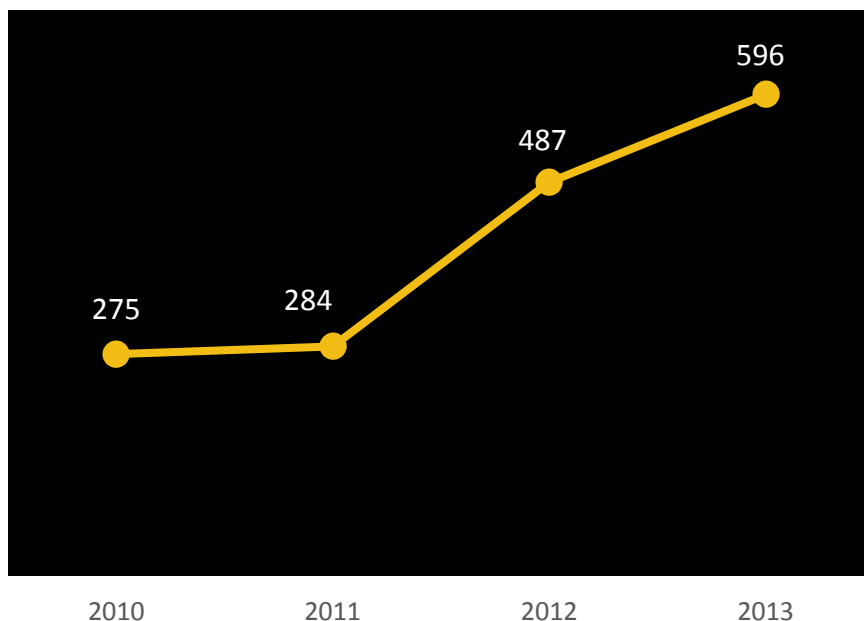
THIS IS ABOUT PERFORMANCE



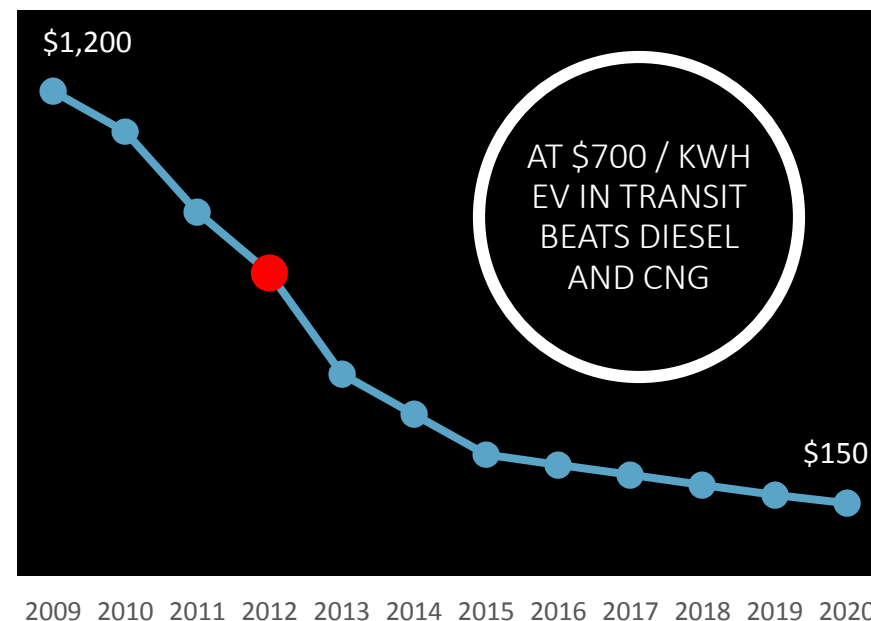
EV MARKET PROVIDED THE COST REDUCTIONS



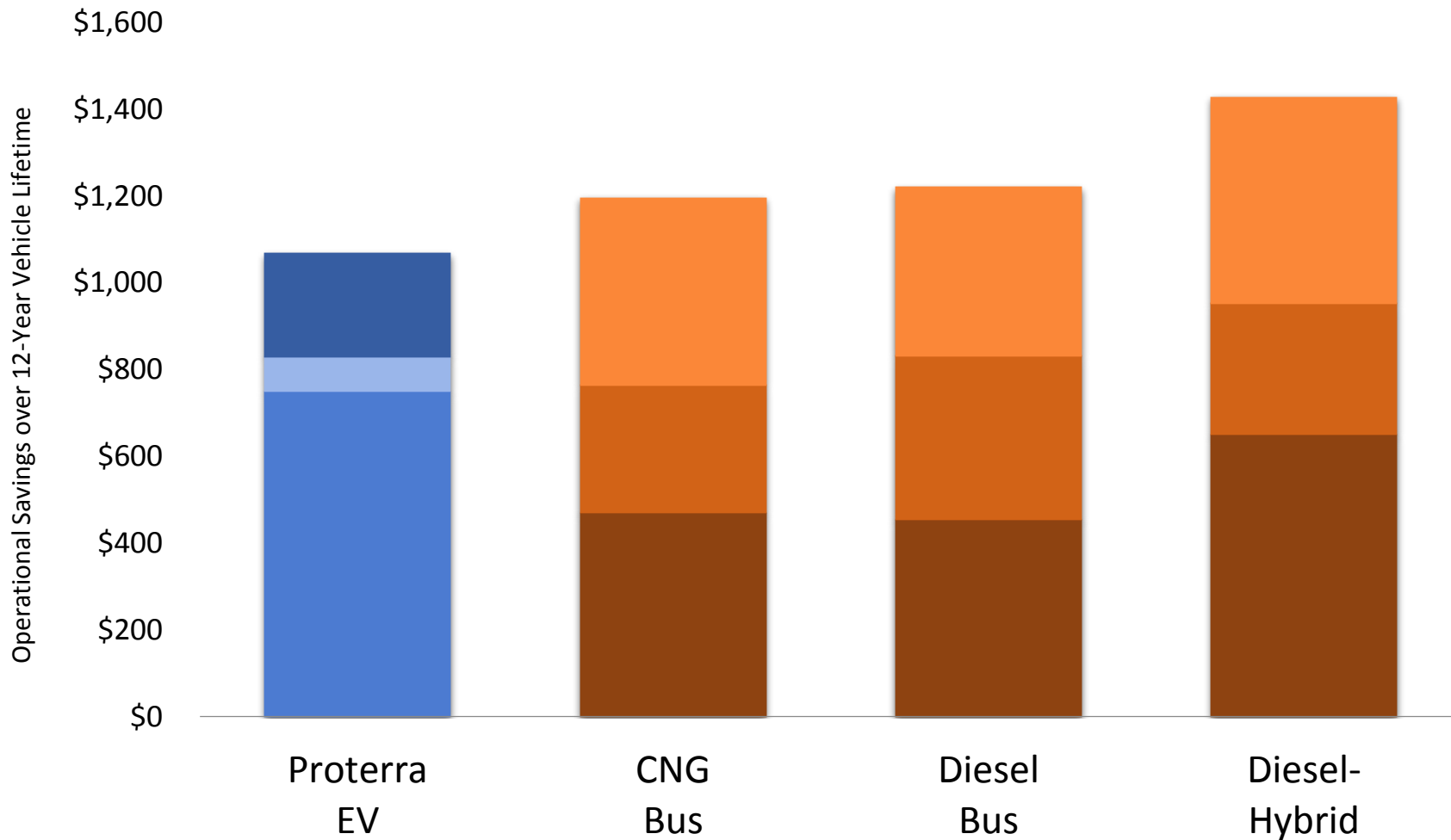
U.S. HYBRID & EV SALES (000s Units)



BATTERY PACK COST (\$/kWh)



•.....> **ADVANCED BATTERY TECHNOLOGY HAS DECLINED IN COST TO THE POINT OF DISRUPTION IN THE TRANSIT MARKET**

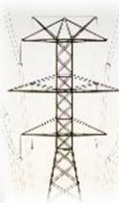


12-yr Operational
Savings per Bus:

\$448k vs. Diesel
\$459k vs. Hybrid
\$408k vs. CNG

**Proterra vehicles can save customers \$450,000
over a 12-year lifetime.**

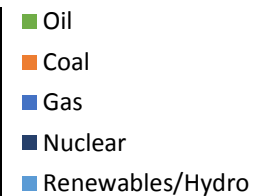
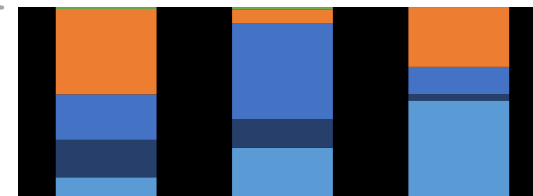
ENERGY EFFICIENCY GAINS AND CLIMATE BENEFITS



ELECTRIC BUS
(2 kWh/Mile)

ELECTRICITY MIX

US CA Pacific Northwest



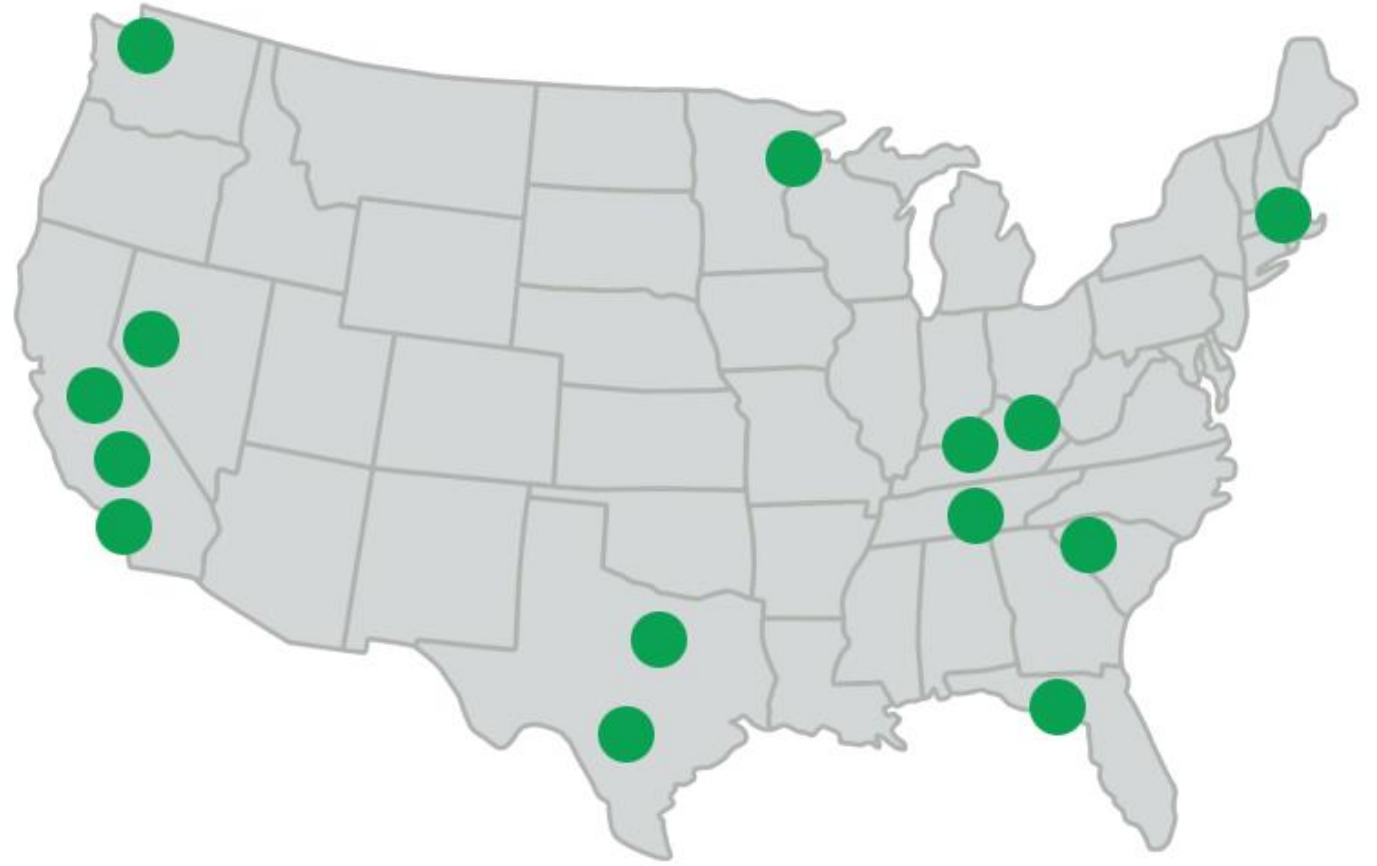
86%

88%

90%

Net Fossil Fuel Reduction

Our Customers Today



**This is
Happening.**

- 14 customers | 108 orders | 316 contracted options
- 60 vehicles delivered | > 1,500,000 service miles
- >5,000,000 pounds of CO2 emissions avoided